NASA's Mars Climate Orbiter

Video Script

In 1999, NASA's Mars Climate Orbiter entered the red planet's atmosphere at a very low altitude which caused its disintegration because of atmospheric stresses. The orbiter was programmed to orbit Mars at an altitude of 226 kilometers to gather climate data. Post-failure calculations indicated that the spacecraft was on a trajectory that would have taken the orbiter within 57 kilometers of the surface of Mars.

Why did the Orbiter fly off course?

Human error.

The flight system software on the spacecraft was written using scientific units of measurement, but the ground crew was entering data using common English units. The example of the Mars Climate Orbiter shows the importance of using a standard system of measurement in science and technology.